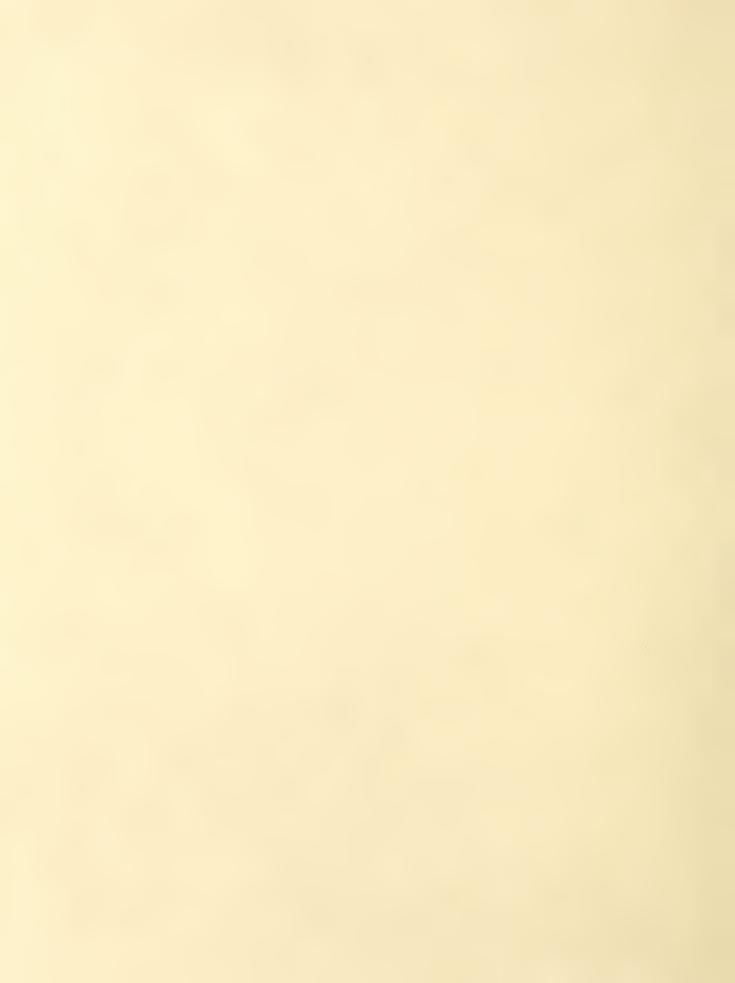
Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



FEDERAL-STATE COOPERATIVE SNOW SURVEYS and IRRIGATION WATER FORECASTS

for **OREGON**May 1,1949



by
Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Oregon Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer,
U.S.Forest Service, National Park Service and other Federal, State, and local organizations



FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR

OREGON

Report Prepared

by

W. T. Frost -- Hydraulic Engineer

Division of Irrigation
Soil Conservation Service
and
Oregon Agricultural Experiment Station
P. 0. Box 1149
Medford, Oregon



May 1, 1949

REVISED WATER SUPPLY OUTLOOK

Oregon's 1949 water supply prospects remain "good" throughout the state in spite of the April "drought" just experienced. Late season deficiencies will probably not be experienced anywhere in the state if normal conditions of snow-melt and precipitation prevail. New runof; records will be established in scattered areas with unusually high flow to be expected in many areas.

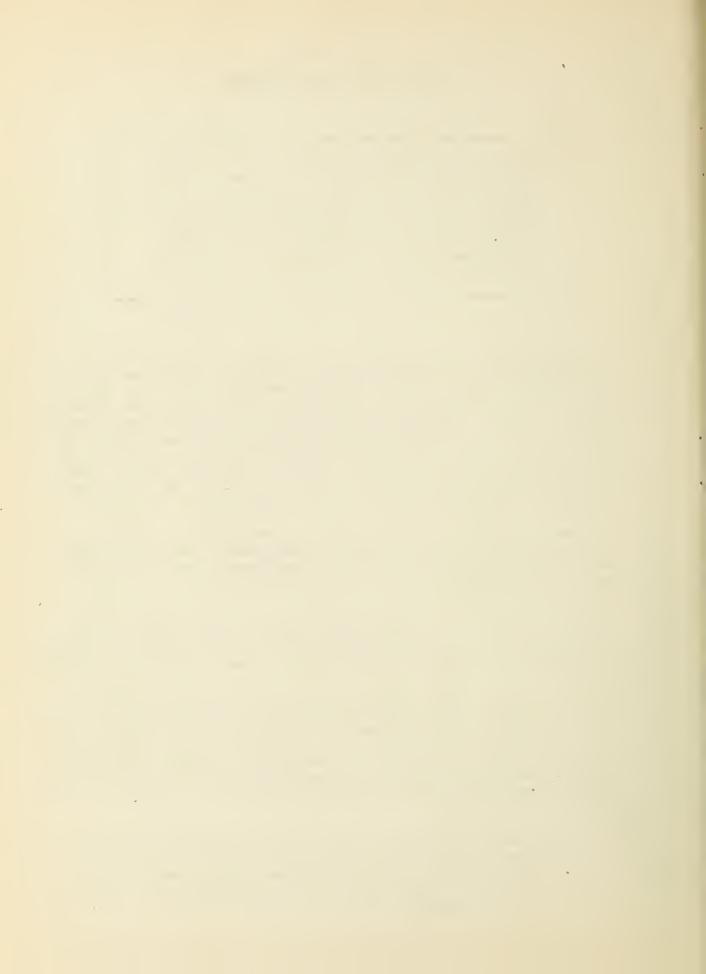
Mountain snow cover has already released much water because of the abnormally warm and dry April weather but this cover still contains water averaging 28 percent above normal throughout the state. Locally, the snow blanket is below normal in water content in the Owyhee, Malheur and Great Basin drainages but it is still greatly above normal in the northern end of the Cascades. Snow surveys at key stations in the Cascades indicate the present snow now contains up to 168 percent of the average water content at the highest elevations. Still Creek snow course, located on Mt. Hood near Government Camp at an elevation of 3700 feet, has a measured water content 268 percent of average.

State-wide precipitation during April was extremely short varying from a low of about 8 percent normal in Southeastern Oregon to a high of 68 percent normal in the Wallowa Mountain area. Other areas had from 18 to 43 percent of their normal precipitation.

Total water stored in all important Oregon reservoirs is 12 percent greater than at this date last year, 2 percent greater than in 1947, 7 percent less than in 1946 and 6 percent less than the 10-year average. Of Oregon's more important reservoirs, 91 percent are half full or better.

Revised streamflow forecasts for the state indicate the need for some reductions from the April 1 forecasts throughout the area because of the lack of precipitation in April. The Owyhee and Malheur basins will probably produce about 20 and 12 percent less runoff, respectively, than was forecast on April 1. This will not mean water shortages in this area, however. Similarly, the inflow to Upper Klamath Lake is expected to be about 12 percent less than was indicated on April 1. (See pages 2 and 3 for revised forecasts)

Now record stream flows for the April-September period are still likely to be established on the Walla Walla, Deschutes, White and Clackamas Rivers. High peak flows have already occurred or will occur on these streams and on the Crooked, North and South Santiam, Sandy, Umatilla, Hood and Applegate Rivers.



REVISED STREAMFLOW FORECASTS, MAY 1, 1949

The following revised runoff forecasts are based on mountain snow cover and on the assumption that precipitation and temperature during the remaining runoff season will be approximately normal. Appreciable deviations from normal of temperature and/or precipitation, especially during May or June, will correspondingly modify these forecasts.

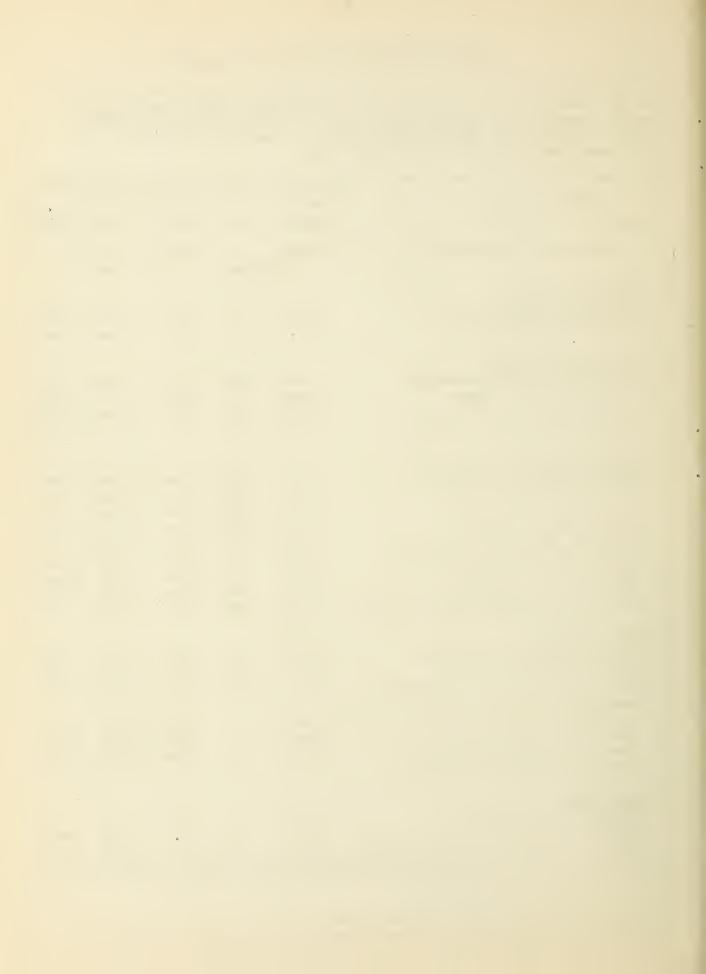
				• II	, T ₁
DIGITAL SID CHIDIDAR	Apr-Sept.				
BASINND STREAM	Forecast		ared Run		-yr.Avg.
	1949	1948	1947	1946	1938-47
Columbia R. at the Dalles ^c	110000.0	,	98488•0	۶	35740.0
Columbia R. at the Dailes		7590•0		06471.0	001.50.0
	121	090•0	7	004/1•0	
NORTHCENTRAL OREGON					
Hood River, WoFk. near Dee	220.0	a	111.1	164.7	131.8
White R.below Tygh Valley	250.0	a	103.1	181.0	123.1
UMATIELA-WALLA WALLA					
Walla Walla R.So.Fk.nr.Milton	85.0	102.1	62.7	75.0	62.4
Umatilla R. near Gibbon	105.0	a	53.9	103.5	75.6
Umatilla R. at Pendleton	200.0	\mathbf{a}	9 6•4	194.0	145.1
McKay C.above McKay Reservoir	30.0	63.4	16.1	20.9	25.1
NORTHEASTLRN OREGON					
Grande Ronde Ronr.LaGrande	240.0	366.2	118.8	179.6	151.1
Catherine Ck.near Union	85 • C	109.9	60.9	76.0	66.3
Bear Ch. near Wallowa	67.0	97.4	69.6	83.4	65.8
Lostine R. near Lostine	125.0	153.5	127.7	149.7	117.5
Hurricane Ck. near Joseph	43.0	59.4	49.9	54.3	43.0
Wallowa R.E.Fk.plus Power Pl.	11.0	a		13.3	11.1
Imnaha River at Imnaha	275.0	a	228.1	320.5	286.6
Powder River at Salisbury	63.0	78.6	43.6	76.4	57.8
Burnt R.nr. Hereford (Natural Flow)	35. 0	62.7	20.2	52.8	35.5
EASTERN OREGON					_
Malheur R. Mid. Fk. nr. Drewsey	68.0	74.0		83.6	
Malheur R.N.Fk. at Beulah	57.0	64.5			
Owyhee R. above Owyhee Reservoir	520.0	257.3	176.6	467.3	421.2
John Day Reat Prairie City,					
combined with Power Canal	45.0	a	38.6	62.2	
John Day ReMidFksat Ritter	130.0	a	93.1	140.2	
John Day R.No.Fk.near Dale	270.0	а	216.5	267.8	217.9
Strawberry Ck.nr.Prairie City	7.8	a	7.9	9.9	8.0
HARNEY BASIN					
Trout Creek near Denio	6.5	a	3.8	7.3	9.2
Silvies R. near Burns	80.0	133.1	47.7	99.6	88.6
Donner und Blitzen RenreFrenchglen		g 199 ⊕ 1	38 . 9	51.0	62.8
Domier and Direzen Manrarrenengien	55 40	ċl,	2049	21.0	02.0

^{* -} Discharge data from preliminary records of U.S. Geological Survey and Oregon State Engineer

a - Discharge data not available

b - April-June rather than April-September

c - Forecast by Boise Office of Soil Conservation Service



vised Streamflow Forecasts, May, 19	AprSept.		camf'low		
ASIN AND STREAM	Forecast	Meas	sured Rur)-yr.ave
	1949	1948	1947	1946	1938-47
CENTRAL OREGON					
Ochoco Reservoir Net Inflow	25.0	72.3	8.2	-16-4	19.9
Crooked River nr. Post	170.0	a	40.6	137.3	102.2
Crescent Lake Net Inflow	22.0	a	19.2	22.2	13.
Little Deschutes Renre Lapine	95.0	a	64.9	114.1	68.
Odell Ck. near Crescent	34.0	a	28.8	32.6	24.
Deschutes R. below Snow Crock	85.0	a	64.5	78.2	48,
Crane Prairie Reservoir Inflow	170.0	a	123.4	153.6	97.
Deschutes R. at Pringle Falls	340.0	a	284.8	297.7	258.
Doschutes R. at Bonham Falls	600.0	a	$495 \cdot 1$	547.5	449.
Tumalo Creek and C.S. Canal	56.0	a	49.1	60.9	43.
Squaw Crook near Sisters	64.0	a	45.7	63.5	44•
SOUTHCENTRAL OREGON		,	ъ	Ъ	
Chewaucan R. near Paisley	68.0	74.5b	32.9 ^b		64.
Deep Creek above Adel	65.0	70.8 ^b	29•1 ^b	57•6 ^b	59
KLAMATH BASIN					
Sprague R. above Chiloquin	190.0	239.9	105.5	261.9	231.
Williamson R. below Sprague R.	350.0	356.3	223.8	415.4	37,7 •
Upper Klamath Lake Not Inflow	470.0	474.8	326.2	536.7	484.
Clear Lake Res. Net Inflow	39.0	70.2	15.9	33.9	41.
Gerber Res. Net Inflow	31.5	21.9	4.3	21.1	21.
SOUTHERN OREGON					
Applegate R. near Ruch	190.0	a	64.6	129.6	116
Hyatt Res. Net Inflow	6.8	9.1	2.1	5.5	5
Fourmile Lake Net Inflow	7 •5	11.0	6.0	8.7	6
Little Butte Ck.N.Fk.below					
Fish Lake (Natural Flow)	14.5	a	10.1	15.7	13.
Rogue R.So.Fk. above Imnaha Ck.	74.0	a	41.4	63.5	49
Rogue R.Mid.Fk.plus Power Canal	90.0	a,	63.4	80.2	68
Rogue R.N.Fk. above Prospect	370.0	343.7	248.8	370.4	282
Rogue R. below So. Fk.	800.0	732.5	539.9	735.4	613
ILLANETTE VALLEY					
Willamotte R. Mid. Fk. at Eula	1100.0	a	737.1	830.3	704
McKenzie R. at McKenzie Bridge	725.0	a	501.2	595.2	500
McKenzie River noar Vida	1600.0	a	1084.2	1227.8	105 ±
Clackamas R. at Big Bottom	250.0	a	a	178.9	143.

^{* -}Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer

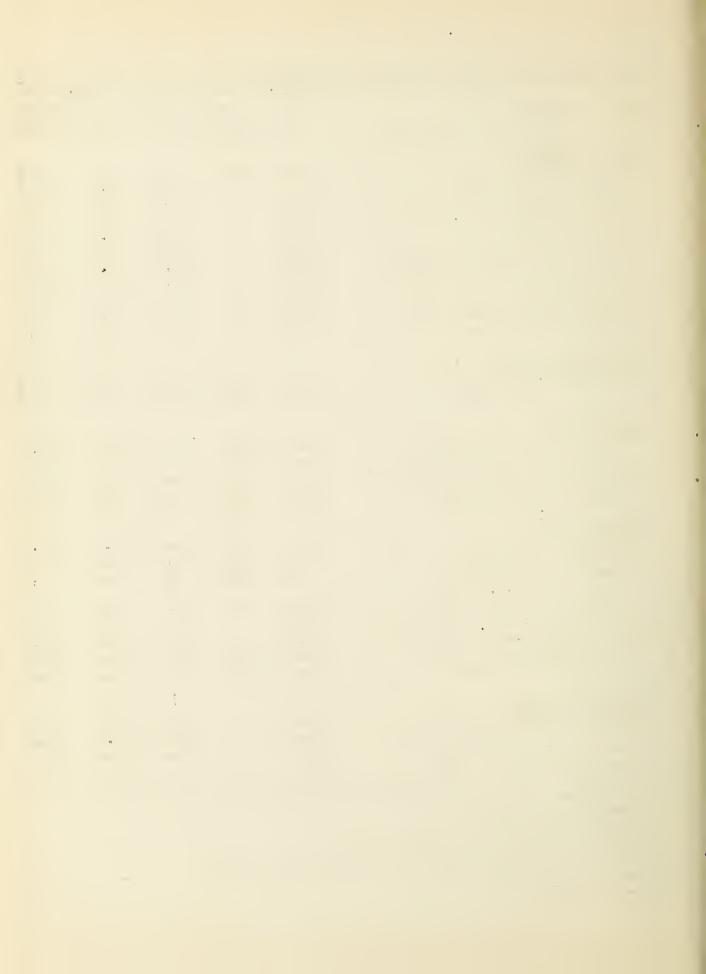
a -Discharge data not available

b -April-June rather than April-September

c -Forecast by Boise Office of Soil Conservation Service

d -Gaging station discontinued

e -1938-46 only



BASIN	STATUS	OF RESERVO		GE, MAY		A DOTTO	MAY 1
and	RESERVOIR	CAPACITY	Incub •	THER THE	DIUNAGE	, ADOUT	10-yr avg
STREAM	TEDODICT OLIC	(Thous .A.F.) 1949	1948	1947	1946	•
		UPPER COL					
Owyhee	Antelope Owyhee	36.5 715.0	N.R. 592.7	N.R. 181.8	22.0 626.9	25.8 711.4	
Malheur	Warm Springs Agency Valley	191.0 60.0	94.0° 58.5°	70•2 5 2• 9	143.5 56.8	192.9 55.2	171.5 58.8
Burnt	Unity	25.2	23.4	19.4	24.6	22.5	22.4
Powder	Thief Valley	17•4	11.9	17.4	17.6	18.5	17.6
Grande Ronde	Wallowa Lake	40.9	21.1	19.3	25.9	17.9	26.9
		LOWER COL	UMBIA DR	AINAGE			
Umatilla	McKay Cold Springs	74•0 50•0	65•4 48•0	71.9 49.7	73.1 50.0	71.3 48.3	67 • 2 - 48 • 5
Deschutes	Ochoco Crescent Lake Crane Prairie Wickiup	46.0 80.0 50.0 180.0	39.0 53.4 42.6 184.0	41.5 49.9 31.8 141.8	36 • 4 53 • 8 43 • 2 95 • 6	34.8	
Willamette	Cottage Grove Fern Ridge	30.1 ^b 94.2 ^b	26.7 73.4	29.6 93.3	29•9 87•8	24.5 74.7	27.7 ^f 70.9 ^d
		WEST CO	AST DRAI	NAGE			
Rogue	Fish Lake Fourmile Lake ^a Emigrant Gap Hyatt Prairie ^a	8.2		4.0 2.4 8.2 5.8	5.0 6.6 8.1 4.8		9•8 8•1
Klamath	Upper Klamath Gerber Clear			482.9 40.9 176.6	42.6		491.0 64.7 291.4
Goose Lake	Cottonwood Drew	4.1 62.5	3.5 62.5	3.4 45.0	4.0 39.7		
fro b - Store	itch to ^K ogue Ri om Klamath Drain age space reserv I on gage zero e	age ed for floo		j	f - 19 f - 19	23-49 43-48 45-47 cl. 194	

S O XO SOSY OF A

. 1 . 0. 2 . . 1' 3 . 1. 5 ç ai P FG. a g t_{ij} , •

VALLEY PRECURITATION

	en parameter entre entre entre entre entre entre entre entre en entre entre entre entre entre entre entre entre	professional management of the second section of the second section of the second section of the second section sectio	pr	and the second section of the second section of the second second	
DRAINAGE DIVISIONS		NT YEAR - May 1, 1949 D		YEAR 7 - May 1, 1948 D	
Southeastern	3.97	-2.60	6.1	-0.5	
Southcentral	5.04	-1.91	11.6	-0.1	
Central	7.58	- 0.57	11.2	+ 2 •5	
Columbia River	12.46	† 0.49	12.7	#3.1	
Wallowa Mountains	8.88	-1.67	12.4	+ 0.9	
Blue Mountains	9.24	-1.59	14.3	†1. 9	
Southern	16.82	-2.83	23.7	+3.9	
Willamette Valley	47.96	+3.04	54.4	†10. 2	

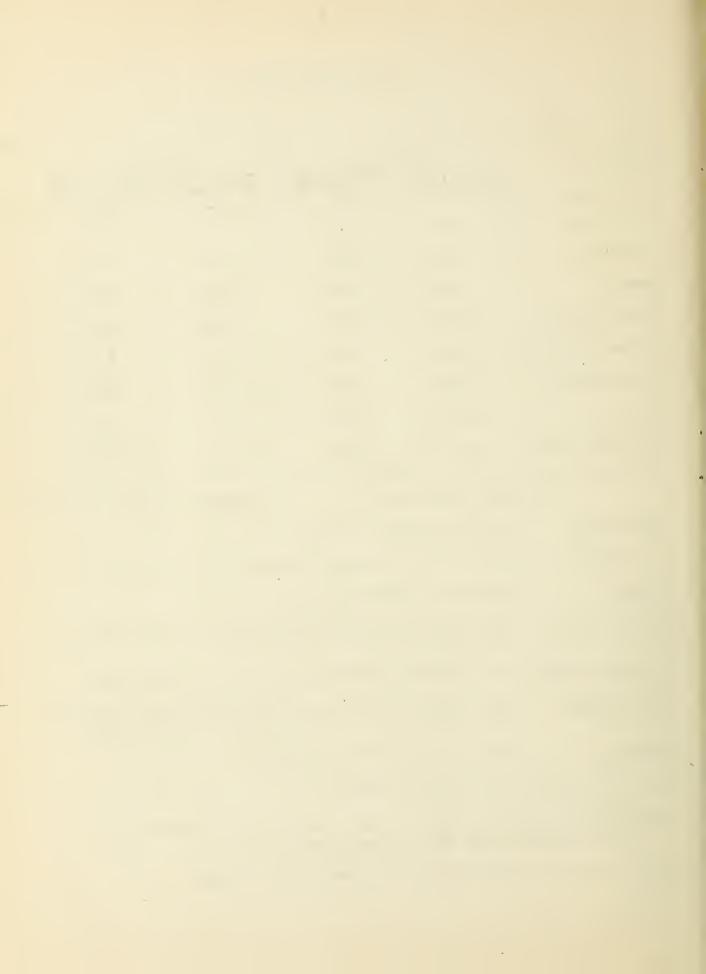
P - Inches Precipitation

D - Inches Departure from Normal

Southeastern Malheur and Owhyee drainages Southcentral Interior Basin drainages and Goose Lake Central Deschutes and Crooked drainages Columbia River Lower valleys of the Walla Walla, Umatilla, John Day, Deschutes and Hood River drainages. Wallowa Mountains Imnaha, Wallowa, Catherine, Eagle and Pine drainages. Blue Mountains Upper valleys of the Burnt, Powder, Grande Ronde, Umatilla, Walla Walla, John Day, Silvies and Malheur drainages. Southern Umpqua, Rogue and Klamath drainages Willamette Valley All Willamette drainages.

Note: Stations used for determining the averages for the current year are not necessarily the same as those used last year.

a - Preliminary data computed from Weather Bureau records.



57.8 60.2

No previous May survey

55.4 55.4 6
No previous May survey

35.0 65.3 60.7 50.0

30.8 124.0 120.3 96.0 88.9

5-2 5-3 4-26 4-26

5750 4755 6400 5800 5600

6年 9年 9年 6年 55年 55年

21S 13S 18S 25S 24S

23 24 21 20 20

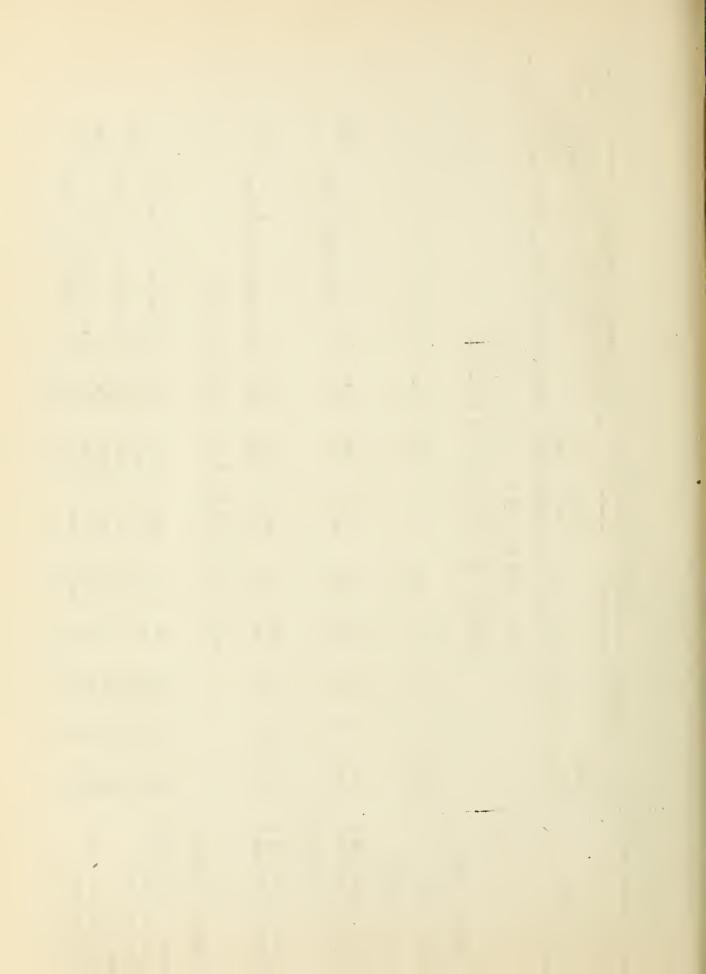
327 351 3244 744 323

> Hogg Pass New Dutchman Flat

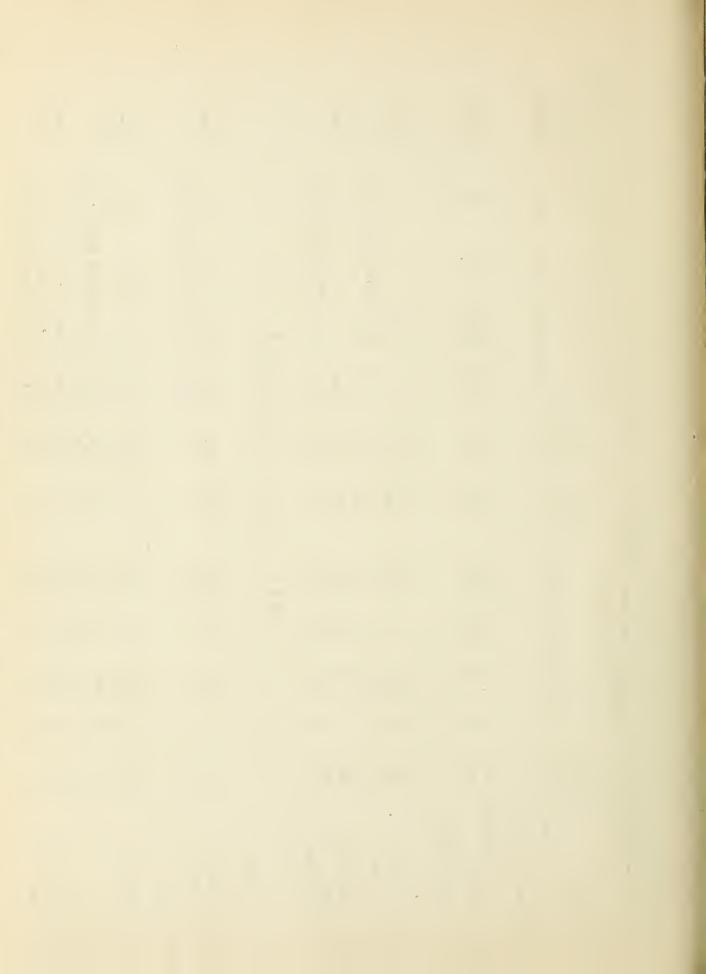
Willamette Pass

Windigo Pass

Idaho 6 5S SW 6400 R 183 16 4S 45E 7480 R 183 16 4S 45E 7480 R 183 16 4S 45E 7480 I 83 16 4S 45E 7600 I 0 W E R	5-1 12.0 4-30 71.2 4-30 71.2 4-30 52.8 COLUMBIA	A I W B G S S S S S S S S S S S S S S S S S S	A G E O M No previous May survey No previous May survey No previous May survey I M A G E I M A G E	ars AveWater Cord (Inches) survey 29.5 survey 29.5 survey
Irlsh-Taylor Lakes 329 25 208 6E 5500 5-2 Cascade Summit 321 7 23S 6E 4880 4-29 Charlton Lake 327 23 21S 6E 5750 5-2	100 • 3 9 64 • 0 80 • 8	46.8 31.7 35.0	No previous May survey 33.0 - 3	31.0

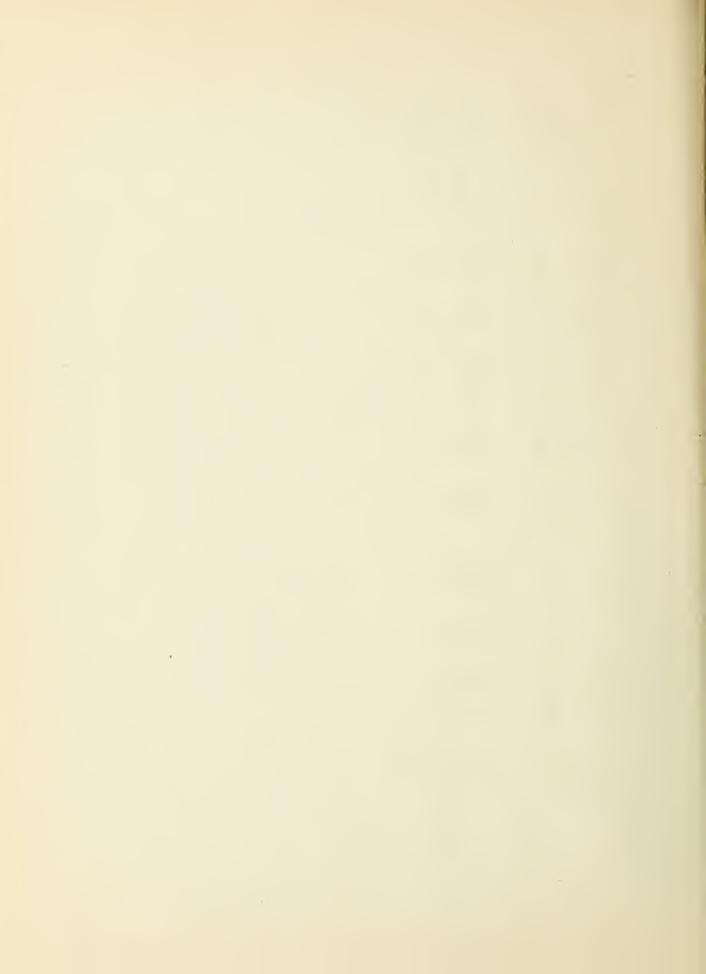


ESEC. TWP. Nange Elev. Survey of SS 3S 9E 5600 5-2 22 21 24 133 7E 2325 4-3 6 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2						ORE	OREGON SNOW	SURVEYS	, MAY,	1949			
Number or State Sec. Twp. Lange Elev. Survey of State Sec. Twp. Lange Elev. Survey of 452 6 35 9E 5600 5-2 451 25 35 8E 5500 5-2 5-2 552 14 135 7E 2325 4-36 5-2 552 14 135 7E 3990 5-3 5-3 551 15 21 245 5E 560 4-26 5-3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			LOCAT	TOM					SNOW		COVLR MALSUREMINTS	1	
Number or State Sec. Twp. Nange Elev. Survey of State Sec. Twp. Nange Elev. Survey Survey Survey State Sec. Twp. Nange Elev. Survey Size Sec. Twp. Nange Elev. Survey Size Sec.	INAGE BASIN								Wo.ter	(5)	(In.)	4	Record
State Sec. Twp. Pange Blev. Surves d 452 6 33 9E 5600 5-2 451 25 35 9E 5600 5-2 451 25 35 9E 5600 5-2 321 7 23 6E 5750 5-2 321 24 135 7E 2325 4-26 321 24 135 7E 3990 5-2 521 14 135 7E 44-26 5-3 521 15 215 6E 5500 4-26 521 15 24 5A 4-26 5-3 521 15 24 5A 4-26 5-3 523 21 24S 5A 5-3 5-3 743 20 25S 6E 5800 4-26 722 30 35S 4E 5800 4-26 722 30 36S 5E 500 4-26 723 15 30<		Number					Date of	Snow Depth			o o x ce	Years	Avalater Content
d 452 6 53 9E 5600 5-2 451 25 38 9E 5600 5-2 451 25 38 9E 5600 5-2 551 21 9S 7E 2325 4-36 321 7 23S 6E 4880 4-26 321 7A 23S 6E 5750 5-2 321 24 13S 7A 44-26 5-3 521A 15 21S 6E 5500 4-27 521A 15 21S 6E 5600 4-27 521A 15 21S 6E 5600 4-27 521A 15 24S 5A 5B 5-3 521A 15 21S 6E 5800 4-27 743 20 25S 6E 5800 4-26 722 30 35S 4B 5-4 723 15 39S 3B 44-26 723 15 37S		State	Sec	Twp.	ange	Elev.	Survey	(In.)	1949	1948	1947	Record	(Inches)
452 6 35 9E 5600 5-2 451 25 38 9E 5600 5-2 351 7 235 6E 4880 4-2 351 24 135 7 E 2325 4-3 551 24 135 7 E 3990 5-3 551 24 135 7 E 590 5-3 551 24 135 7 E 590 5-3 551 24 135 7 E 590 5-3 551 24 25 5 6E 5800 4-2 743 29 275 6E 5315 4-2 722 30 365 5E 5300 4-2 725 30 365 5E 5300 4-2 725 30 365 5E 5300 5-2 727 3 378 45 5010 5-2 728 38 318 6E 6450 5-2	NDY RIVER												
551. 21 9S 7E 2325 4-30 321 7 235 6E 4880 321 7 235 6E 4880 321 23 21S 6E 5750 552 14 13S 7½E 5990 552 14 13S 7½E 5990 552 14 13S 7½E 5000 5-3 521 15 21S 6E 5500 5-2 523 21 24S 5½E 5600 4-27 743 29 27S 6E 5315 4-27 722 30 36S 5E 5300 723 15 39S 3E 4900 5-2 723 15 39S 3E 6450 5-1	ox Point-Mt.Hood	452 451	ê 25	333	36 36 8	5600	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	180.7	89.1 29.8	72.5	48.1	10	53.1
551. 21 9S 7E 2325 4-36 321	LLAMETTE RIVER												
227 23 21S 6E 5750 5-3 551 24 13S 72 4755 5-3 552 14 13S 72 5990 5-3 521 15 21S 6E 5500 4-27 323 21 24S 52 560 4-27 323 21 24S 52 560 4-27 323 21 24S 52 6E 5305 4-26 344 20 25S 6E 5305 4-26 722 30 36S 5E 5300 4-28 725 30 36S 5E 5300 4-28 725 15 39S 33 4990 5-2 836 8 31S 6E 6450 5-4	ltenbush sade Summit	551.		9S 23S	7五	2325 4880	4-30 4-29	12.3	5.7	0.0		H 20	31.0
351 24 135 725 4755 5-3 552 14 135 78 3990 5-3 521A 15 21S 6E 5500 4-27 323 21 24S 52B 5600 4-27 743 29 27S 6E 5315 4-26 944 20 25S 6E 5300 4-26 722 30 36S 5E 5300 4-26 722 30 36S 5E 5300 4-26 725 3 35S 5E 500 4-26 725 3 35S 4900 5-2 723 15 39S 3B 4900 5-2 723 15 39S 3B 4900 5-2 836 8 31S 6E 6450 5-4 723 15 39S 3A 4900 5-4 723 15 36S 6E 6450 5-4 723 15 36S	1ton Lake	327		213	E	5750	2-5	80,8	35.0	No previous	vious May	ສຸດ	
132 134 135	Pass	351		138	7 <u>5</u> 五 五	4755	ය 1 ව සි	124.0	65°3	i i	F 1	≈ -	57.8
223 248 5\frac{1}{2}E 5600 4-27 \ \frac{743}{2} 29 27\$ 6E 5315 4-26 \ \frac{944}{2} 20 25\$ 6E 5800 4-26 \ \frac{743}{2} 29 27\$ 6E 5800 4-26 \ \frac{722}{722} 30 36\$ 5E 5300 4-26 \ \frac{722}{722} 30 36\$ 5E 5300 4-26 \ \frac{722}{722} 17 40\$ 3E 5010 5-2 \ \frac{723}{723} 15 39\$ 3E 5450 5-4 \ \frac{723}{720} 30\$ 4E 6450 5-4 \ \frac{723}{720} 4E 3720 5-1 \ \frac{723}{720} 4E 3720 \ \frac{723}{720}	tram sunction lo Lalte	521A		218	至 至 9	5500	2 2 0	83.4	37.5	No pre	previous May	y survey	O ● H H
743 29 27S 6E 5315 4-26 944 20 25S 6E 5800 4-26 944 20 25S 6E 5805 4-26 831 19 31S 6E 6018 5-4 722 30 36S 5E 5300 4-26 725 3 37S 4E 4865 4-26 725 15 39S 3E 4900 5-2 723 15 39S 3E 4900 5-2 836 8 31S 6E 6450 5-4 7219 30 30S 4E 5720 5-1	lamette Pass	323		24S	5 <u>六</u> 田	2600	4-27	88 • 9	46.1	1	1	Н	36.8
743 29 27S 6E 5315 944 20 25S 6E 5800 831 19 31S 6E 6018 722 30 36S 5E 5300 722 3 37S 4E 4865 7221 17 40S 3E 5010 723 15 39S 3E 4900 836 8 31S 6E 6450 7219 30 30S 4E 3720					闰	E-I	य। 01	D Al	H N H) [의			
743 29 27S 6E 5315 944 20 25S 6E 5800 831 19 31S 6E 6018 722 30 36S 5E 5300 725 3 37S 4E 4865 7221 17 40S 3E 5010 723 15 39S 3E 4900 836 8 31S 6E 6450 7219 30 30S 4E 3720	PQUA RIVER												
831 19 31S 6E 6018 722 30 36S 5E 5300 725 3 37S 4E 4865 7221 17 40S 3E 5010 723 15 39S 3E 4900 838 8 31S 6E 6450 7219 30 30S 4E 3720	nond Lake ligo Pass	743 944		27S 25S	6E 6E	5315 5800	4-30	33 • 6 96 • 0	15.4 50.0	21.0 1.8 No previous	1.8 vious May	10 y survey	15.9
831 19 31S 6E 6018 722 30 36S 5E 5300 725 3 37S 4E 4865 7221 17 40S 3E 5010 723 15 39S 3E 4900 836 8 31S 6E 6450 7219 30 30S 4E 3720	TO RIVER												
722 30 368 5E 5300 725 3 378 4E 4865 7221 17 40S 3E 5010 723 15 39S 3E 4900 836 8 31S 6E 6450 7219 30 30S 4E 3720	e Spring	831		318	6E	6018	53	93.4	45.8	44.3	29.6	10	37.3
725 3 37S 4E 4865 7221 17 40S 3E 5010 723 15 39S 3E 4900 838 8 31S 6E 6450 7219 30 30S 4E 3720	Div.	722		368	5正	5300	4-25	41.5	22.3	ı			27.8
723 15 39S 3E 4900 838 8 31S 6E 6450 7219 30 30S 4E 3720		725		37S 40S	2 년 전 전	4865 5010	4-24	13.0	8 C	No pre-	previous May	y survey	
838 8 31S 6E 6450 7219 30 30S 4E 3720		723		3 9S	3E	4900	2-5	0.0	0.0	8.8	ı	Н	8
7219 30 30S 4E 3720		838		318	王9	6450	5-4	116.4	59.0	58.4	45.7	വ	57.3
		7219	30	308	4E	3720	2 i	0•0	0•0	No pre	vious Ma	No previous May survey	

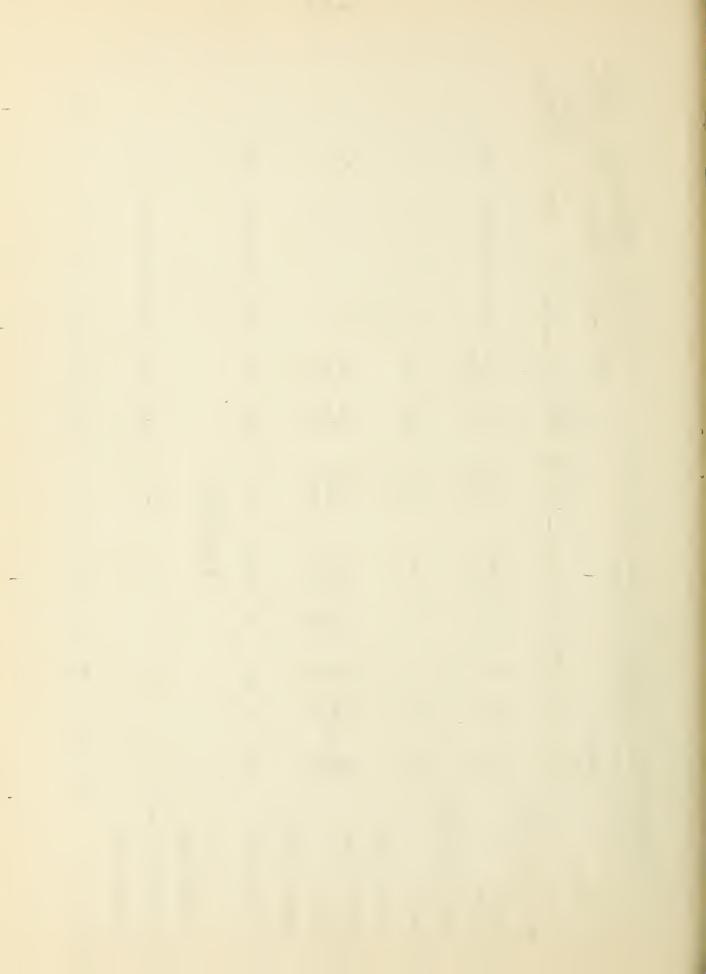


			ង	tt.	(8	
		ocor d	AvoWate	conten	(Inche	
	MEN TS	Water Content (In.) Past Record	Years 1	of content	Record (Inches	
	SNOW COVER MEASUREMENT	t (In.)	Approx.	Date	1949 1948 1947	
	OW COVE	Con ten	Same		1948	
	SNS	Water			1949	
MAY, 19			Snow	Depth	$(In \bullet)$	
OREGON SNOW SURVEYS, MAY, 1949			Date	of	Survey (
N SNOW S					. Range Elev.	
_	Zi.				Range	
	LOCATION				- Twp.	
	ĭ				Sec	
			Number	or	State Sec. Twp	
		N				BASIN
		DRAINAGE BASIN	QMV	SNOW COURSE		KLAMATE LAKE BASIN
		DRAIN	7	SNOW		KLAM

			& & &	
		0.2	Ч	
	29.6	vious M	8.8	7.5°2,
	44,3	No pre	8 8	58.4
	43 • 8	0.0	0.0	29.0
	93.4	0.0	0.0	116.4
	5-2	5-1	2-5	5-£
	6018	4760	4900	6450
	日9	됨	3E	6E
	318	278	3.98	318
	19	21	15	ω
	831	834	723	838
KLAMATE LAKE BASIN	Annie Spring	Chemult No. 1	Hyatt Prairie Res.	Park Mendquarters



AND SNOW SURVEY DATA NOT PUBLISHED	SNOW COVER ME.SUREMENTS Water Content (In.) Past Record	Same Approx Years Date	oy (In.) 1949 1948 1947 Record		55E 4300 4-15 12.1 5.9		38E 5070 4-15 71.7 37.5 " " " "		35E 3925 4-15 3*2 1*4 " " " " 35E 4300 4-15 12*1 5*9 " " " " 38E 5070 4-15 71*7 37*5 " " " "		9E 6400 4-17 116.4 65.4 Special Mid-April Survey	Delayed Data		9E 5600 5-5 36.3 16.9 No previous May survey		7E 3500 5-4 55.4 28.5 13.0 - 5 11.7
NI O	SNO er Co	3					2		466							
LISHE	Wat		- 1						5,		65.			16.5		28.5
VOT PUE		Snow Denth	(In.)		12.1		71.7		3,2		116.4			36.3		55 • 4
VEY DATA 1		Date	Survey		4 - 15		4-15		4 - 15 4 - 15 1 - 15		4-17			5-5		5-4
SNOW SUR	İ		Elev.		4300 5070		5070		3925 4300 5070		6400	Delaye		9099		3500
UN T			Range		38E		38E		35E 35E 38E		9E					
SURVE	LOCATION		Twp		15 4N		N7		NI SI SI		185			178		89
73		Ł	Sec		24¢25 32		32		29 24&25 32		12			ы		14&15
D-APRI		Number	State		221		212		222 221 212		324A			331		591
SPECIAL MID-APRIL	DRAINAGE BASTE	MOLLINIAGE BURING AND IN AND AND AND AND AND AND AND AND AND AN	T017000 10170	GRANDE RONDE RIVER	Moacham Tollgate	WALLA WALLA RIVER	Tollgate	UMLTILL RIVER	Emigrant Springs Maacham Tollgate	DESCHUTES RIVER	New Dutchman Flat		DESCHUTES RIVER	Three Creeks Meadows	CLACKAMAS RIVER	Peavine Ridge



The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers

FEDERAL

Department of Agriculture
Forest Service
Soil Conservation Service
Department of Commerce
Weather Bureau
Department of the Interior
Bonneville Power Administration
Bureau of Roclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
War Department
Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company Portland General Electric Company The California Oregon Power Company

MUNICIPALITIES

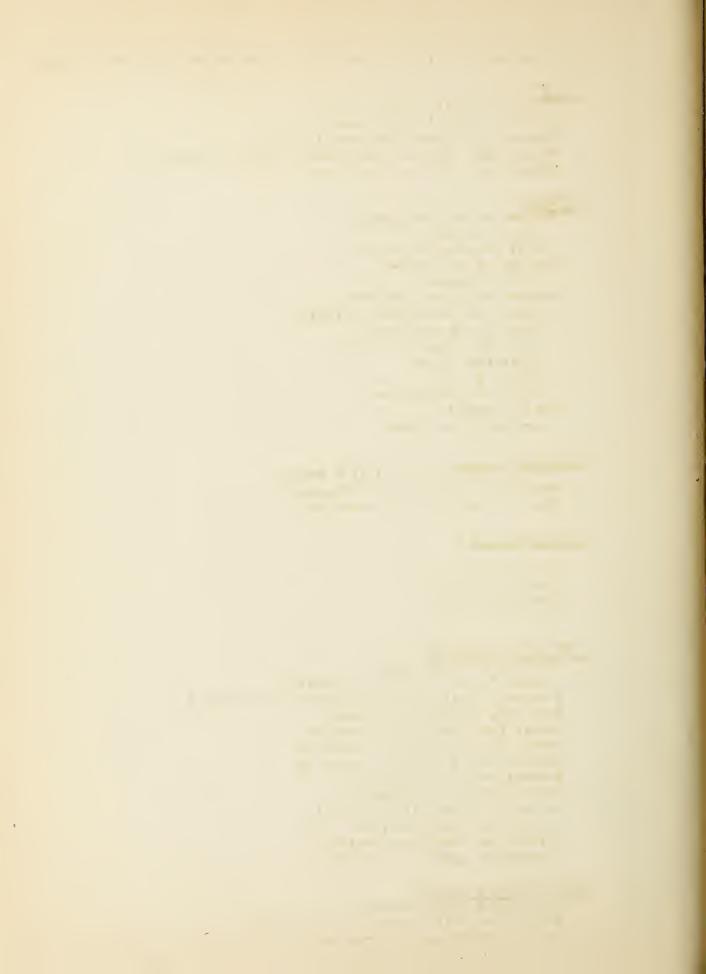
City of Baker City of Corvallis City of LaGrande City of The Dalles

IRRIGATION DISTRICTS

Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Valo-Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company
South Wasco Soil Conservation District
The Crag Rats-Hood River-Oregon



の三年

UC) 月日日 200g 四日月



